



USDA Foreign Agricultural Service

GAIN Report

Global Agriculture Information Network

Required Report - public distribution

Date: 11/27/2002

GAIN Report Number: MX2162

Mexico

Citrus

Annual

2002

Approved by:

William L. Brant

U. S. Embassy

Prepared by:

Dulce Flores/Gabriel Hernandez

Report Highlights:

Mexican orange and grapefruit production for MY 2002/03 is forecast to be lower compared to MY 2001/02 production, due to dry weather conditions. Lime production is forecast to increase slightly for MY 2002/03, due to more trees coming into production. FCOJ production is forecast to decrease for MY 2003, due to less available fruit.

Includes PSD Changes: Yes
Includes Trade Matrix: No
Unscheduled Report
Mexico [MX1], [MX]

TABLE OF CONTENTS

| | |
|---|----|
| SECTION I. Situation and Outlook | 3 |
| Citrus Situation | 3 |
| SECTION II. Statistical Tables | 4 |
| Fresh Orange Table | 4 |
| Fresh Citrus, Other Table | 5 |
| Fresh Grapefruit Table | 6 |
| Fresh Concentrate Orange Juice Table | 7 |
| Orange Prices | 8 |
| Key Lime Prices | 10 |
| Grapefruit Prices | 11 |
| SECTION III. Narrative on Supply & Demand, Policy & Marketing | 13 |
| FRESH ORANGES | 13 |
| Production | 13 |
| Consumption | 14 |
| Trade | 14 |
| Marketing | 15 |
| FRESH CITRUS, OTHER | 15 |
| Production | 15 |
| Consumption | 17 |
| Trade | 17 |
| FRESH GRAPEFRUIT | 18 |
| Production | 18 |
| Consumption | 19 |
| Trade | 19 |
| FROZEN CONCENTRATE ORANGE JUICE | 19 |
| Production | 19 |
| Consumption | 20 |
| Trade | 20 |

SECTION I. Situation and Outlook

Citrus Situation

Dry weather conditions along the Gulf of Mexico affected overall citrus production for MY 2002/03, however, the most affected product was oranges. The fresh orange production forecast for MY 2002/03 (November-October) is 3.7 MMT, a decrease compared to MY 2001/02. Prices for oranges are expected to increase due to smaller supplies. Frozen concentrate orange juice (FCOJ) production for MY 2003 (January-December) is also forecast to be down at 36,000 MT compared to MY 2002 production because of lower orange production and probable higher prices for fresh oranges. Therefore, exports of FCOJ for MY 2003 are forecast to decrease to approximately 33,350 MT because of a shorter availability of domestic oranges for processing.

Total production of Key limes and Persian limes for MY 2002/03 is forecast at 1,600,000 MT, slightly higher than MY 2001/02 production, due to more acreage coming into production. Persian and Key Lime exports for MY 2002/03 are forecast at 245,000 MT, a slight increase from the preceding year estimates, due to expected higher prices compared to MY 2001/02.

Grapefruit production for MY 2002/03 is forecast at 270,000 MT. Growers expect production to recover from the dry weather conditions that affected output along the Gulf of Mexico from Tabasco to Tamaulipas. The state of Michoacan, however, enjoyed good weather conditions and production was good and increasing. Grapefruit exports for MY 2002/03 are forecast to reach 4,000 MT. According to growers, demand from the European market has been growing steadily. On the other hand, most of the imported grapefruit from the U.S. is processed and shipped back to the U.S.

SECTION II. Statistical Tables

Fresh Orange Table

| | | | | | | |
|------------------------|---------------|--------|-------------|---------------------------------|----------|--------|
| PSD Table | | | | | | |
| Country | Mexico | | | | | |
| Commodity | Fresh Oranges | | | (HECTARES)(1000 TREES)(1000 MT) | | |
| | Revised | 2000 | Preliminary | 2001 | Forecast | 2002 |
| | Old | New | Old | New | Old | New |
| Market Year Begin | 11/2000 | | 11/2001 | | 11/2002 | |
| Area Planted | 340805 | 340805 | 335000 | 347000 | 0 | 348000 |
| Area Harvested | 324816 | 324816 | 318000 | 328000 | 0 | 320000 |
| Bearing Trees | 65612 | 65612 | 64236 | 66256 | 0 | 64640 |
| Non-Bearing Trees | 3230 | 3230 | 3434 | 3838 | 0 | 5656 |
| TOTAL No. Of Trees | 68842 | 68842 | 67670 | 70094 | 0 | 70296 |
| Production | 3885 | 3885 | 3800 | 4000 | 0 | 3600 |
| Imports | 27 | 31 | 27 | 31 | 0 | 32 |
| TOTAL SUPPLY | 3912 | 3916 | 3827 | 4031 | 0 | 3632 |
| Exports | 19 | 19 | 20 | 19 | 0 | 17 |
| Fresh Dom. Consumption | 3493 | 3497 | 3397 | 3562 | 0 | 3255 |
| Processing | 400 | 400 | 410 | 450 | 0 | 360 |
| TOTAL DISTRIBUTION | 3912 | 3916 | 3827 | 4031 | 0 | 3632 |

Fresh Citrus, Other Table

| | | | | | | |
|------------------------|--------------------|--------|-------------|---------------------------------|----------|--------|
| PSD Table | | | | | | |
| Country | Mexico | | | | | |
| Commodity | Fresh Citrus,Other | | | (HECTARES)(1000 TREES)(1000 MT) | | |
| | Revised | 2000 | Preliminary | 2001 | Forecast | 2002 |
| | Old | New | Old | New | Old | New |
| Market Year Begin | 11/2000 | | 11/2001 | | 11/2002 | |
| Area Planted | 132000 | 131826 | 136000 | 138000 | 0 | 140000 |
| Area Harvested | 126000 | 124660 | 127000 | 127000 | 0 | 129000 |
| Bearing Trees | 24444 | 24184 | 24765 | 24765 | 0 | 25155 |
| Non-Bearing Trees | 1164 | 1390 | 1755 | 2134 | 0 | 2134 |
| TOTAL No. Of Trees | 25608 | 25574 | 26520 | 26899 | 0 | 27289 |
| Production | 1630 | 1573 | 1650 | 1600 | 0 | 1620 |
| Imports | 1 | 2 | 1 | 1 | 0 | 1 |
| TOTAL SUPPLY | 1631 | 1575 | 1651 | 1601 | 0 | 1621 |
| Exports | 245 | 247 | 250 | 240 | 0 | 245 |
| Fresh Dom. Consumption | 1118 | 1076 | 1133 | 1105 | 0 | 1116 |
| Processing | 268 | 252 | 268 | 256 | 0 | 260 |
| TOTAL DISTRIBUTION | 1631 | 1575 | 1651 | 1601 | 0 | 1621 |

Fresh Grapefruit Table

| | | | | | | |
|------------------------|------------------|-------|-------------|---------------------------------|----------|-------|
| PSD Table | | | | | | |
| Country | Mexico | | | | | |
| Commodity | Fresh Grapefruit | | | (HECTARES)(1000 TREES)(1000 MT) | | |
| | Revised | 2000 | Preliminary | 2001 | Forecast | 2002 |
| | Old | New | Old | New | Old | New |
| Market Year Begin | 11/2000 | | 11/2001 | | 11/2002 | |
| Area Planted | 13200 | 14626 | 13500 | 14700 | 0 | 14400 |
| Area Harvested | 12800 | 13222 | 12800 | 12600 | 0 | 13000 |
| Bearing Trees | 2406 | 2485 | 2406 | 2369 | 0 | 2444 |
| Non-Bearing Trees | 752 | 263 | 1316 | 394 | 0 | 320 |
| TOTAL No. Of Trees | 3158 | 2748 | 3722 | 2763 | 0 | 2764 |
| Production | 250 | 320 | 225 | 250 | 0 | 270 |
| Imports | 10 | 9 | 10 | 8 | 0 | 9 |
| TOTAL SUPPLY | 260 | 329 | 235 | 258 | 0 | 279 |
| Exports | 3 | 7 | 4 | 2 | 0 | 4 |
| Fresh Dom. Consumption | 223 | 282 | 197 | 221 | 0 | 238 |
| Processing | 34 | 40 | 34 | 35 | 0 | 37 |
| TOTAL DISTRIBUTION | 260 | 329 | 235 | 258 | 0 | 279 |

Fresh Concentrate Orange Juice Table

| | | | | | | |
|----------------------|---------------|-------|-------------|-------------------|----------|-------|
| PSD Table | | | | | | |
| Country | Mexico | | | | | |
| Commodity | Juice, Orange | | | Degrees Brix (MT) | | |
| | Revised | 2000 | Preliminary | 2001 | Forecast | 2002 |
| | Old | New | Old | New | Old | New |
| Market Year Begin | 01/2001 | | 01/2002 | | 01/2003 | |
| Deliv. To Processors | 400 | 400 | 410 | 450 | 0 | 360 |
| Beginning Stocks | 3000 | 3000 | 2700 | 3000 | 0 | 3000 |
| Production | 40500 | 40500 | 41000 | 45000 | 0 | 36000 |
| Imports | 206 | 770 | 150 | 700 | 0 | 700 |
| TOTAL SUPPLY | 43706 | 44270 | 43850 | 48700 | 0 | 39700 |
| Exports | 37900 | 37900 | 37501 | 42350 | 0 | 33350 |
| Domestic Consumption | 3106 | 3370 | 3349 | 3350 | 0 | 3350 |
| Ending Stocks | 2700 | 3000 | 3000 | 3000 | 0 | 3000 |
| TOTAL DISTRIBUTION | 43706 | 44270 | 43850 | 48700 | 0 | 39700 |

Orange Prices

| WHOLESALE ORANGE PRICES (PESOS /KG) | | | |
|-------------------------------------|------|-------|----------|
| Month | 2001 | 2002 | Change % |
| January | 1.30 | 1.12 | (13.85) |
| February | 1.27 | 1.14 | (10.24) |
| March | 1.27 | 1.19 | (6.30) |
| April | 1.30 | 1.54 | 18.46 |
| May | 1.63 | 2.47 | 51.53 |
| June | 1.94 | 3.30 | 7.10 |
| July | 2.78 | 4.01 | 44.24 |
| August | 3.53 | 4.05 | 14.73 |
| September | 3.47 | 3.54 | 2.02 |
| October | 1.64 | 1.69 | 3.05 |
| November | 1.47 | 1.78* | 21.09 |
| December | 1.40 | N/A | N/A |

SOURCE: SERVICIO NACIONAL DE INFORMACION DE MERCADOS
 AVR. EXCHANGE RATE FOR 2001 US\$1.00 = \$ 9.35 PESOS
 EXCHANGE RATE NOVEMBER 18, 2002 US\$1.00 = \$ 10.24 PESOS
 * As of first week of November 2002.

Persian Lime Prices

| PERSIAN LIME WHOLESALE PRICES (PESOS /Kg) | | | |
|---|------|-------|----------|
| Month | 2001 | 2002 | Change % |
| January | 2.85 | 2.34 | (17.89) |
| February | 2.18 | 2.69 | 23.39 |
| March | 4.80 | 4.99 | 3.96 |
| April | 3.65 | 3.52 | (3.56) |
| May | 1.55 | 3.45 | 122.58 |
| June | 1.12 | 2.26 | 101.79 |
| July | 1.05 | 1.39 | 32.38 |
| August | 1.14 | 1.33 | 16.67 |
| September | 1.12 | 1.53 | 36.61 |
| October | 0.98 | 1.37 | 39.80 |
| November | 1.05 | 1.60* | 52.38 |
| December | 1.70 | N/A | N/A |

SOURCE: SERVICIO NACIONAL DE INFORMACION DE MERCADOS

AVR. EXCHANGE RATE FOR 2001 US\$1.00 = \$ 9.35 PESOS

EXCHANGE RATE NOVEMBER 18, 2002 US\$1.00 = \$ 10.24 PESOS

* As of first week of November 2002.

Key Lime Prices

| KEY LIME WHOLESALE PRICES (PESOS/KG) | | | |
|--------------------------------------|------|-------|----------|
| Month | 2001 | 2002 | Change % |
| January | 4.01 | 4.25 | 5.99 |
| February | 3.00 | 3.74 | 24.67 |
| March | 2.41 | 2.21 | (8.30) |
| April | 1.79 | 2.11 | 17.88 |
| May | 1.86 | 2.02 | 8.60 |
| June | 2.14 | 2.08 | (2.80) |
| July | 1.93 | 2.66 | 37.82 |
| August | 2.25 | 3.04 | 35.11 |
| September | 1.97 | 2.83 | 43.65 |
| October | 1.94 | 2.33 | 20.10 |
| November | 2.10 | 2.61* | 24.29 |
| December | 3.18 | N/A | N/A |

SOURCE: SERVICIO NACIONAL DE INFORMACION DE MERCADOS

AVR. EXCHANGE RATE FOR 2001 US\$1.00 = \$ 9.35 PESOS

EXCHANGE RATE NOVEMBER 18, 2002 US\$1.00 = \$ 10.24 PESOS

* As of first week of November 2002.

Grapefruit Prices

| GRAPEFRUIT WHOLESALE PRICES BY MAIN PRODUCER STATES | | | | | | |
|--|-----------|------|------------|------|----------|------|
| MONTH | MICHOACAN | | TAMAULIPAS | | VERACRUZ | |
| | 2001 | 2002 | 2001 | 2002 | 2001 | 2002 |
| JANUARY | | | | | 1.90 | 1.66 |
| FEBRUARY | | | | | 2.05 | 1.64 |
| MARCH | | | | | 2.40 | |
| APRIL | | | | | 2.90 | 3.07 |
| MAY | | 3.39 | 3.90 | | 3.10 | 3.14 |
| JUNE | 3.30 | 3.50 | 4.25 | 3.80 | | |
| JULY | 3.43 | 3.82 | | | | |
| AUGUST | 4.20 | 3.09 | | | | |
| SEPTEMBER | 4.40 | 2.44 | | | 3.00 | 2.76 |
| OCTOBER | | | | | 2.16 | 2.41 |
| NOVEMBER | | | | | 2.10 | 2.26 |
| DECEMBER | | | | | 1.62 | |

SOURCE: SNIM

AVERAGE EXCHANGE RATE FOR 2001 USD\$1.00 = \$9.35 PESOS

EXCHANGE RATE NOVEMBER 18, 2002 US\$1.00 = \$10.24 PESOS

Note: shaded area represents that domestic grapefruit prices were not available.

| MONTHLY EXCHANGE RATE AVERAGES | | | |
|--------------------------------|------|------|---------|
| | 2000 | 2001 | 2002 |
| January | 9.02 | 9.76 | 9.16 |
| February | 9.43 | 9.70 | 9.10 |
| March | 9.28 | 9.60 | 9.07 |
| April | 9.37 | 9.33 | 9.14 |
| May | 9.50 | 9.14 | 9.49 |
| June | 9.81 | 9.09 | 9.75 |
| July | 9.43 | 9.15 | 9.79 |
| August | 9.27 | 9.12 | 9.83 |
| September | 9.33 | 9.40 | 10.05 |
| October | 9.52 | 9.45 | 10.09 |
| November | 9.50 | 9.25 | 10.23 * |
| December | 9.44 | 9.16 | n/a |
| Annual Avg. | 9.40 | 9.35 | n/a |

Source: Mexican Federal Register

Note: Monthly rates are averages of daily exchange rates from the Banco de Mexico.

* as of November 19, 2002.

SECTION III. Narrative on Supply & Demand, Policy & Marketing**FRESH ORANGES****Production**

The fresh orange production forecast for MY 2002/03 (November-October) is 3.7 MMT, a decrease compared to MY 2001/02, because prevailing dry weather conditions affected overall production. Prices for oranges are expected to increase due to smaller supplies. Production will also be affected because some areas in Veracruz have been abandoned, due to low market prices and high input costs. However, some area has been offset by orange tree plantings in northern Veracruz and San Luis Potosí, with better technology. As the Yucatan area was damaged by Hurricane Isidore, orange production will be down for that region. Trees were damaged and a program to restore the area will be launched. Orange production in the state of Yucatan was on average about 220,000 MT or about a 5 percent of total production.

The orange production estimate for MY 2001/02 was revised upward based on official data. Producers indicate that weather was better than expected in most of the producing states for the main harvest, from October to April, which corresponded to the first and second bloom. But, for the third and fourth blooms, from April to August, dry weather conditions affected production reducing it somewhat. The early variety (Marsh) of oranges from Nuevo Leon and Tamaulipas was slightly shorter than expected, thereby garnering good prices. The MY 2002/03 forecast for oranges destined for processing is 360,000 MT, a decrease compared to MY 2001/02, due to a shorter supply of oranges. However, the industry indicated that international prices for frozen concentrate orange juice prices (FCOJ) are good and it expects to be able to process enough to cover the U.S. quota. The estimate for oranges destined for processing for MY 2001/02 was revised upward, based on industry information and better international prices for FCOJ. Data for MY 2000/01 remains unchanged.

Area planted for oranges is forecast at 348,000 hectares for MY 2002/03, a very slight increase compared to MY 2001/02 area planted. In fact, some expansions in Veracruz have been almost offset by growers abandoning groves or switching to other crops, due to high production costs, wide swings in fresh orange prices, or marketing problems. Meanwhile, the orange processing industry, which buys most of the product in the market, has now begun to plant its own groves in order to ensure a continuous supply. The rate of expansion of orange groves in other areas of the country has also been slow. Area planted and harvested for MY 2001/02 was revised upward based on official estimates. The main citrus producing states are Veracruz, Nuevo Leon, San Luis Potosí and Tamaulipas, which account for 73 percent of total area planted. Tabasco, Campeche and Yucatan are relatively new compared to Veracruz, representing a 12 percent of total area planted.

Country-wide orange yields in MY 2002/03 are forecast to decrease to 11.2 MT/Ha, due to weather related problems. Orange yields differ widely depending on the production area. Usually, Veracruz yields range from 10 to 20 MT/Ha. In Nuevo Leon, yields range from 12 to 15 MT/Ha. In San Luis Potosi, yields range from 7 to 13 MT/Ha. This variance in yields is caused by many factors such as weather, input levels, tree density and terrain.

Costs of production have increased for all citrus fruit, especially for imported inputs, such as fertilizers, pesticides and other agrochemical products which have correspondingly increased at the rate of inflation. Production costs vary among the citrus regions and between producers. The average cost of production in some areas in Veracruz for a traditional grove with little intensive cultivation is approximately 4,500 pesos/Ha (US\$445/Ha), while the average cost for a more intensively-farmed grove is about 8,500 pesos/Ha (US\$841.58) or higher. The cost of production is higher in Nuevo Leon than in Veracruz because of irrigation

costs. Costs in Nuevo Leon range from 11,000 to 12,000 pesos/Ha (US\$1,089.10 to 1,188.11/Ha). Fertilization and pest control accounts for much of the difference between these two different averages. These costs represent approximately 40 percent of total production costs. Average field worker wages are about 60 pesos (US\$5.94) per day, but sometimes producers have to pay 80 pesos or more (US\$7.92) per day to attract enough workers. To harvest oranges, workers are being paid much more -- about 200 pesos/MT (US\$19.80/MT), due to competition for workers from the *maquiladoras* and immigration to the United States.

Grower prices at the farm gate for MY 2002/03 began in October at of 800 pesos/MT (US\$79.20/MT) for the early varieties. However, since production this year will be lower, prices are expected to rise when the juice industry begins to buy fruit. Transportation costs from Veracruz to Mexico City are usually 2,500 to 3,000 pesos per 10 MT (US\$247.52 to \$297.02 per 10 MT) for one-day delivery.

In 2001, the Mexican government announced the establishment of a campaign against citrus tristeza virus (CTV). The main objective of this campaign is to establish phytosanitary measures to prevent, control and eradicate CTV and the brown citrus aphid in Mexico (see MX 1123). The brown citrus aphid has been detected in the states of Quintana Roo and Yucatan. But the CTV has been detected in the other citrus producing states, like Veracruz, Sonora, San Luis Potosi, Tabasco, Nuevo Leon, Colima, Michoacan, Morelos, Yucatan, Quintana Roo, Campeche, Nayarit, and Baja California. According to citrus producers, citrus from the Yucatan has to be washed, and packed in order to be transported to other states. So far, this extra process is being paid by local producers at approximately 80 pesos/MT (US\$7.92/MT). There is national program for citrus reconversion wherein the government will promote the planting of CTV-resistant root stock. However, this replanting has been slow as it is very costly. Growers in other states have not yet organized to protect their groves and efforts are being done more on an individual basis, with some producers planting CTV-resistant root stock.

Consumption

The fresh orange consumption forecast for MY 2002/03 is 3.2 MMT, a decrease compared to MY 2001/02 consumption, due to expected higher prices and a decrease in the consumer purchasing power. Final consumption estimates, however, will depend on the final volume purchased by the processing industry. The MY 2001/02 consumption estimate was revised upward, based on official estimates and accessible prices. The MY 2000/01 consumption estimate was revised upward, based on available information. Orange prices for MY 2002/03 are expected to be higher because of shorter supplies. During the first two weeks of October 2002, wholesale prices of new-crop Valencia oranges from Veracruz averaged 1.80 pesos/kg. (US\$0.18/kg). Most of the oranges in the fresh market are destined for domestic fresh squeezed juice.

Trade

Mexican orange exports for MY 2002/03 are forecast to decrease to 17,000 MT, due to a decrease in domestic production. However, if U.S. demand is stronger, some more fruit could be diverted for export purposes. Although orange exports for MY 2001/02 were revised downward, this figure still represents a good international demand. Data for MY 2000/01 remains unchanged. Most of the oranges exported to the U.S. are from Sonora, which produces very good, high quality oranges. Mexico will continue to export processed oranges as peeled slices for fruit salads and other foods. Mexican exporters keep exploring Asian markets, such as Hong Kong and Japan. The high quality oranges produced in the Sonora desert (about 160,000 MT) are suitable for these markets because shipments come from the Sonora fruit fly-free zone.

Mexican orange imports for MY 2002/03 are expected to increase slightly, due to a shorter crop in Mexico. However, this will depend on imports remaining at affordable prices. MY 2000/01 and 2001/02 import data were revised upward, due to a greater demand for imported product. U.S. orange exports to Mexico could expand significantly given the import zero tariff in Mexico and the ability of California, Texas and Arizona to ship to Mexico. U.S. orange prices, however, are higher than Mexican domestic produce.

Marketing

There are three major wholesale markets or *Centrales de Abastos* in the country, which account for 80 percent of total citrus fruit sold. Mexico City's Central Market handles 40 percent of the sales. The two other largest markets are located in Guadalajara and Monterrey. Mexico's distribution system is unique in its mix between traditional distribution methods (central market purchasing and delivery) and more sophisticated methods (large regional and national distributors).

Distributors/importers are the key to the success of any imported product since only some of the major retail and few of the major food service chains import directly. For any U.S. company entering Mexico, it is important to have an agent or reliable distributor, who can maintain regular contact with buyers, interface with the government and handle the required paperwork, and ensure that service is maintained.

For fresh horticultural products, including citrus fruits, each city has a central wholesale market known as the *Central de Abastos*. Virtually all of Mexico's horticultural and fruit production and imports move through these markets, where they are sold in boxes. Typical buyers in this area are large supermarket chains, street markets, hotels and restaurants.

U.S. citrus fruit exporters should be aware of the fact that the Mexican market is more price sensitive than quality sensitive. This is one of the main reasons for limited exports of US citrus products. Despite the excellent quality, prices are 4 to 5 times higher than Mexican products. Some attempts have been made by US firms to enter the market, but they have had limited success because of strategies emphasizing quality rather than price. Another limitation for US citrus exports to Mexico are the phytosanitary restrictions. Only citrus fruits coming from the states of California, Texas and Arizona are authorized by the Mexican government to enter the country having an International Phytosanitary Certificate, which indicates that the products were grown in fruit fly-free areas. Negotiations are still underway for Florida Citrus.

A free trade agreement was signed between Mexico and the European Union (EU) that went into effect on July 1, 2000. Among the agricultural products negotiated in the agreement were fresh orange juice and FCOJ. The EU allows 1,000 MT of fresh orange juice under a quota access to the EU market with a 50 percent tariff under the MFN duty. Also, the EU will allow 30,000 MT of FCOJ under a quota with a tariff of 25 percent under the MFN duty. Mexico has increased exports of FCOJ to Germany, the United Kingdom and the Netherlands.

FRESH CITRUS, OTHER

Production

This section covers two citrus fruits that are of economic significance to Mexico: Key Limes and Persian Limes. Mexican Key Limes are grown mainly on the Pacific coast, in the states of Colima, Michoacan, Guerrero and Oaxaca. Most Persian Limes are grown in a micro-climate called "*La Huasteca*" that includes portions of the states of Veracruz, San Luis Potosi, Tamaulipas, and Hidalgo. Also, Oaxaca, Yucatan, and Tabasco in the southern part of Mexico are producing Persian Limes.

Total production of both limes for MY 2002/03 is forecast at 1,600,000 MT, slightly higher than MY 2001/02 production, due to more acreage coming into production. According to producers, rainfall during May/June 2002 in Michoacan and Colima for Key Limes was satisfactory. Overall weather conditions in Veracruz for Persian Limes were drier than normal, as rainfall was not adequate. Production for MY 2000/01 and 2001/02 were revised downward based on recent official estimates. In general, the growth of area planted for both limes have increased production.

Area planted to both Persian and Key Limes has increased in Mexico. Due to the export benefits of Persian Limes, planted area for this fruit has grown at a faster rate in Veracruz. Some producers in Veracruz have replanted orange and grapefruit groves with Persian Limes because of favorable international demand and prices. Also, demand of Key Limes has increased from the domestic market. Therefore, new trees are coming into production in Veracruz, Michoacan and Oaxaca. Approximately 25 percent of the total area is planted with Persian Limes and 75 percent is planted with Key Limes. Due to the excellent winter window for Key Limes for the domestic market, planted area for this fruit is expanding in Michoacan. According to producers, however, the domestic market is saturated and therefore a sharp increase in the area planted would only result in lower producer profits. Total area planted for MY 2002/03 is forecast at 140,000 hectares. Area planted for MY 2001/02 was revised upward based on new official estimates. Area planted and harvested for MY 2000/01 was revised downward based on official final estimates. Nearly 20 percent of the Persian Lime groves in Veracruz use micro-jet irrigation or other irrigation systems and produce all year round. Most of the irrigated Key Lime groves are in the states of Michoacan and Colima and are able to produce all year round. In contrast, almost all the planted area for Key Lime in Guerrero and Oaxaca is non-irrigated. In Colima, in over half of the Key Lime groves, coconut palm trees are planted in between Key Lime trees. The purpose of this interplanting is to increase producer revenue.

Since production costs for Persian Limes in Veracruz produced for export is higher than those for oranges, the Persian Lime trade tends to be dominated by large producers. According to sources, Persian Lime production costs average from 8,000 pesos/Ha to 9,500 pesos/Ha (US\$792.00 to \$940.60/Ha) or more, due to higher prices for imported inputs such as fertilizers, pesticides and other agrochemical products. Well tended areas can have production costs of \$14,000 pesos/Ha (US\$1,386.13/Ha). Transportation costs from Veracruz to Mexico City are usually 3,500 to 4,000 pesos/truck (US\$346.53 to \$396.00 / truck), and delivery time averages about 8 hours. The cost of production for Key Limes varies according to the cultural practices and technology used. In the most important Key Lime producing states (Oaxaca, Colima and Michoacan) production costs can vary from 7,000 pesos/Ha to 16,000 pesos/Ha (US\$693.07 to \$1,584.15/Ha) for the well-tended areas.

Persian and Key Lime yields differ widely depending on production conditions. The yields for Persian Limes in Veracruz mostly range from 5 to 12 MT/Ha., depending on cultural practices, but some yields are as high as 25 MT/Ha. Key Lime yields average between 7 to 12 MT/Ha., with a few well-tended groves reaching 30 MT/Ha. For Key Limes in Colima that are interplanted with coconut palm, yields are generally 50 percent less than in conventional groves.

Grower prices for Persian Limes range from 400 to 800 pesos/MT (US\$39.60 to \$79.20/MT) for the domestic market, and 600 to 3,000 pesos/MT (US\$60.00 to \$297.00/MT) for the export market during January to April. Grower prices for Key Limes fluctuate more than do those for Persian Limes, depending on the season and the producing state. On average, Key Lime grower prices from Michoacan range from 650 to 2,600 pesos /MT (US\$64.35 to \$257.42/MT). Michoacan production is geared toward the winter season (October/February),

while production from Colima, Oaxaca and other states cover the rest of the year. There is, however, year-round production for both Key and Persian Limes.

Consumption

Domestic consumption of both Key and Persian Limes in Mexico depends largely on price. Total lime consumption for MY 2002/03 is forecast at 1,116,000 MT. Prices for both limes, however, began at higher levels compared to MY 2001/02. Consumption for MY 2000/01 and 2001/02 was revised downward based on more available data. Those Persian Limes which do not meet the higher quality requirements demanded of the export market, will be consumed domestically.

Most of the Key Limes go to the fresh domestic market, although exports have been increasing recently. In general, approximately 18 to 23 percent of total Key Lime production goes to processing. Producers from Colima and Michoacan indicate that approximately 35 to 40 percent of their limes go to processors. Official information on the processing industry, however, is unavailable. About 60 to 70 percent of Persian Limes from Veracruz go to the export market and the rest go to the fresh market and processing plants. This balance, however, depends on U.S. demand.

Mexican Key Limes and Persian Limes compete for the same market. When Key Limes and Persian Limes are both present in the domestic market, prices are relatively low. At the onset of the Persian Lime harvest season (August or September), prices for both drop. After a month or two, however, when Persian Lime growers begin to export, prices for Persian Limes increase and remain high until April or May when exports of Persian Limes stop and both crops are again competing for the fresh domestic market. Key Limes from Michoacan, Colima and Oaxaca are sold on the wholesale market in 18-20/kg boxes; those from Guerrero are sold in 20-22/kg bags. Persian Limes are sold in the wholesale market in 50-100/kg bags.

Trade

Persian and Key Lime exports for MY 2002/03 are forecast at 245,000 MT, a slight increase from the preceding year estimates, due to expected higher prices compared to MY 2001/02. The current international price for Persian Limes, however, remains low. MY 2002/03 prices for Persian Limes in October 2002 were US\$5 to \$8/40-pound box, while in 2001 prices were about US\$8 and US\$9/40-pound box. Growers, however, are expecting prices to rise to US\$12 to \$15 per box for December and January 2003. Persian Limes reach on average US\$20 to \$30/40-pound box when international prices are good. Exporters indicate that Brazil is competing with Mexico for the European market. Export estimates for MY 2001/02 were revised downward because dry weather conditions reduced somewhat Persian Lime production. Exports for 2000/01 were revised upward based on trade data. According to producers, Persian Limes from Mexico supply about 40 percent of the U.S. and Canadian markets. However, lime producers are expanding into new markets in Japan and Europe. Lime imports continue to be low due to ample domestic supplies at available prices. MY 2002/03 imports are forecast at 1,000 MT. Data for MY 2000/01 remains unchanged, and data for MY 2000/01 was revised upward based on available trade data.

Mexico's tariff rate on imported limes from the United States is zero under NAFTA. The U.S. tariff rate for Persian Limes is zero. The U.S. tariff phase-out for Key Limes is not expected to substantially increase lime exports to the United States in the short term. Mexican exports depend on U.S. demand and price.

| NAFTA TARIFF SCHEDULE - US TARIFF | | |
|-----------------------------------|-----------|---------------|
| YEAR | KEY LIMES | PERSIAN LIMES |
| 2000 | 0.60¢/kg | 0.00¢/kg |
| 2001 | 0.40¢/kg | 0.00¢/kg |
| 2002 | 0.27¢/kg | 0.00¢/kg |

FRESH GRAPEFRUIT

Production

Grapefruit production for MY 2002/03 is forecast at 270,000 MT. Growers expect production to recover from the dry weather conditions that affected output along the Gulf of Mexico from Tabasco to Tamaulipas. Production for MY 2001/02 was revised upward based on official estimates, but it still reflects a lower production compared to MY 2000/01. This decrease in grapefruit production is a result of dry weather conditions during the production cycle along the Gulf of Mexico and the use of fewer inputs to maintain groves, due to high costs of production. The state of Michoacan, however, enjoyed good weather conditions and production was good and increasing. Although the groves are still relatively new, they are entering the sixth or seventh year of production and so are reaching their maximum-bearing potential. Consequently, production is expected to reach 25,000 MT or more per year. Grapefruit production estimates for MY 2000/01 were revised upward based on official data.

There is a tendency to decrease area planted in Veracruz and increase area in Michoacan. New planted areas in central Veracruz have been offset by abandoned areas in other parts of the same state. Most of the new planted areas are geared towards the European export market. According to the industry, however, grapefruit plantings increased in the state of Michoacan because of better general weather conditions and a much lower cost of production. These areas are also geared towards the export market. Campeche is also a newly-developed area with only a few hectares of planted grapefruit compared to other states and is also geared to the export market. Therefore, area planted for grapefruit is forecast at 14,400 hectares for MY 2002/03 a decrease compared to MY 2001/02. It seems that Veracruz had less area devoted to grapefruit and replanted with Persian Limes.

Area planted for MY 2001/02 was revised upward and area harvested was revised downward, reflecting an increase in area planted in Michoacan because of good domestic and international prices. Less area was harvested because of the effects of the dry weather conditions. Area planted and harvested for MY 2000/01 was revised upward based on official data. This data reflect increases in area planted, mainly in Michoacan and Campeche.

There are two types of grapefruit planted in Mexico: the red table varieties produced in Tabasco, Campeche, Michoacan, Nuevo Leon and Veracruz for export to the United States and Europe as fresh fruit; and the white fleshed varieties produced in Tamaulipas and Veracruz for juice production or for peeled slices. According to growers, planting of red varieties are increasing because of the export market preferences. The state of Nuevo Leon has a certified forced-hot-air chamber in Montemorelos, but due to its high operation costs, it has been used very little as an alternative quarantine treatment. So, exports through this method are not expected to grow.

According to growers, the MY 2002/03 forecast for grapefruit destined for processing will be approximately 37,000 MT. Grapefruit is used for peeled slices or juice production. Grapefruit for processing purposes for MY 2000/01 and 2001/02 was revised upward based on available information.

Overall average yields for MY 2002/03 are forecast at 20.7 MT/Ha. Average yields for MY 2001/02 are estimated at 19.8 MT/Ha because of the dry weather conditions that affected several producing states. An overall normal yield for grapefruit is approximately 23 MT/Ha. Veracruz accounts for about 64 percent of Mexican grapefruit production and has the highest yield in the country with 20 to 26 MT/Ha. Nuevo Leon follows with yields of 18 to 20 MT/Ha. Michoacan has lower yields -- between 10 to 14 MT/Ha., but these yields are expected to increase. In other states, yields vary from 10 to 15 MT/Ha. Grower prices for MY 2002/03 in Veracruz began in October 2002 at approximately 700 pesos/MT (US\$69.30/MT) for the red varieties, however, prices tend to drop by November. Grower prices for Nuevo Leon began on average at 1,000 pesos/MT (US\$99.00/MT). Since Michoacan has developed areas with red varieties that can be harvested in June/July, grower prices were higher at approximately 2,000 to 3,000 pesos/MT (US\$198.00 to \$316.63/MT).

Consumption

Grapefruit consumption for MY 2002/03 is forecast at 238,000 MT. Demand for grapefruit has increased in the past years, due to the preference of consumers for low calorie foods, but it decreases if prices increase. Consumption estimates for MY 2000/01 and 2001/02 were revised upward based on available information. Wholesale prices for October 2002 in Mexico City were approximately 2.40 pesos/kg (US\$0.23/kg), an increase compared to prices of 2.00 pesos/kg (US\$0.21/kg) in October 2001. Retail prices averaged 3.50 pesos/kg (US\$0.35/kg). Growers indicate that there is no premium on quality, as consumers are more interested in lower prices. This trend also affects grapefruit consumption versus other more accessible fruits like oranges. Since Michoacan can harvest earlier than Veracruz, Michoacan producers can command higher prices in the domestic market.

Trade

Grapefruit exports for MY 2002/03 are forecast to reach 4,000 MT. According to growers, demand from the European market has been growing steadily. Although grapefruit exports are geared to the European and Japanese markets, exports are still small. Exports for MY 2001/02 were revised downward because the dry weather affected fruit quality, which did not comply with European standards. Export estimates for MY 2000/01 were revised upward based on trade data and a larger demand from the European markets. However, any substantial increase in grapefruit exports, will depend upon advances in the phytosanitary area and technological practices.

According to sources, most of the imported grapefruit from the U.S. is further processed for re-export to U.S. and European markets. Imports are expected to increase to 9,000 MT for MY 2002/03, but this will depend on demand from the export markets. Data for imported grapefruit for MY 2000/01 and 2001/02 was revised downward, due to higher prices and less demand. While likely to expand slightly, U.S. grapefruit exports to Mexico will still be relatively small.

FROZEN CONCENTRATE ORANGE JUICE

Production

Frozen concentrate orange juice (FCOJ) production for MY 2003 (January-December) is forecast at 36,000 MT, a decrease compared to MY 2002 production because of lower orange production and probable higher prices for fresh oranges. Juice production depends heavily on the international price of FCOJ. The industry is expecting prices to rise at least to

US\$1.0/lb for CY 2003. The international price for FCOJ contracts for CY 2002 deliveries were at US\$0.80 to US\$0.90/lb. The FCOJ production estimate for MY 2002 was revised upward based on industry information. According to the industry, higher international prices encouraged the industry to produce more juice compared to MY 2001. Data for MY 2000 remains unchanged. The industry is expecting to buy fruit for 2003 at higher prices than it did in MY 2002. The industry bought fresh fruit on average from 400 to 550 pesos/MT (US\$43.90 to \$60.37/MT) during February/March 2002, but if the fresh market receives higher prices due to shorter supplies, the processing industry will have to pay higher prices. Fresh market prices for oranges for processing may go as high as 600 to 700 pesos/MT (US\$59.40 - \$69.30/MT) by the end of the season.

The general uncertainty of the FCOJ industry has not changed from previous years. Unless FCOJ export prices are good, thereby enabling processors to increase the price paid to fruit producers, it is unlikely that juice concentrate production will increase dramatically. Due to financial problems of the processing industry, there has been a concentration of ownership. Of the 22 Mexican juice plants previously in operation in, only 7 are currently running.

Consumption

In general, the industry does not expect domestic consumption to increase dramatically because of the availability of fresh oranges in the domestic market and a lack of demand. The majority of Mexican consumers prefer and demand fresh squeezed juice instead of processed orange juice. The industry indicates that consumption for MY 2003 is expected to remain similar to that of MY 2002 because of an expected lower consumer purchasing power. Consumption estimates for MY 2001 and 2002 were revised upward, due to the introduction of more orange-flavored beverages in the market. Most of the orange juice produced in Mexico goes to the export market. According to processors, there is usually about a 3,000 MT carryover of FCOJ from one year to the other. Ending stocks for MY 2001 were revised upward.

Trade

Exports of FCOJ for MY 2003 are forecast to decrease to approximately 33,350 MT. Exports are expected to be lower because of a shorter availability of domestic oranges for processing. According to industry sources, if production is as low as expected, the U.S. quota might not be filled. Exports for MY 2002 were revised upward, based on industry information and better international demand. The United States is the main market for Mexican FCOJ, with Japan and European countries also becoming important markets for this product. Any FCOJ export growth will be limited to the needs of Florida's industry to mix its juice with the higher sugar-ratio and more deeply-colored Mexican juice. Also, export increases will depend on promotion in other markets besides the U.S.

FCOJ imports for MY 2000 and 2001 were revised upward according to available data. According to the industry, most imports are for mixing purposes. FCOJ imports for MY 2003 are forecast to be similar to those of MY 2002. With a good domestic supply of FCOJ and domestic consumption almost flat, greater FCOJ imports are not likely for the time being.

Under NAFTA, Mexico has access to the U. S. market for 40 million gallons of FCOJ (single strength equivalent) at one-half of the Most Favored Nation (MFN) tariff rate. Any FCOJ imports above the quota will enter the United States at the MFN rate. This quota will be phased-out over 15 years. Exporters of FCOJ need a certificate issued by the Mexican government to be able to export to the U.S. under the NAFTA provisions. The Mexican government allocates the quota amongst most of the producing companies to give them an equal opportunity to share the benefits of NAFTA. When a company cannot cover the designated quota, the Mexican government reallocates the uncovered share to other companies.